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Jens Foegler

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PROPAT, L.L.C.

425-C SOUTH SHARON AMITY ROAD

CHARLOTTE, NC 28211-2841

EXAMINER

JACOBSON, MICHELE LYNN

ART UNIT

PAPER NUMBER

1782

MAIL DATE

DELIVERY MODE

05/11/2010

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

|                              |                                      |                                       |  |
|------------------------------|--------------------------------------|---------------------------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/580,976 | <b>Applicant(s)</b><br>FOEGLER ET AL. |  |
|                              | <b>Examiner</b><br>MICHELE JACOBSON  | <b>Art Unit</b><br>1782               |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 28 January 2010.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 6-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 6-29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)                        | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claim 6 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

3. Claim 6 has been amended to recite the limitation "wherein the protein consists of gelatin, collagen, casein, gluten, zein, ardein, pea protein, cottonseed protein and or fish protein". However, there is no support in applicant's originally filed specification for the recitation of "consists of". Therefore, applicant's amendment constitutes new matter.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-4, 6-8, 10-17, 19-27 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hammer et al. WO98/34490 (U.S. Patent No. 6,902,783 used herein for translation and reference, hereafter referred to as Hammer) and Bradshaw et al. U.S. Patent No. 3,494,772 (hereafter referred to as Bradshaw).

6. Hammer teaches an edible shaped body in the form of a flat or tubular film based on plastifiable biopolymers or cleavage products or derivatives thereof and/or synthetic polymers of natural monomers. (Col. 1, lines 52-55) Preferred examples of the plastifiable biopolymers include extrudable gelatins and other natural proteins, alginic acids and alginates and carrageenan. (Col. 2, lines 38-46) The content of the biopolymers is generally from 10% to 90% by weight based on the total weight of the shaped body. (Col. 2, lines 54-58) Preferably, two or more of the starting biopolymers are used together. (Col. 2, lines 59-60) They are expediently uniformly mixed and plastified at relatively high temperatures by relatively long kneading in a twin-screw extruder in the presence of a plasticizer, a plasticizing aid (=lubricant), a hardener (=crosslinker) and, if appropriate, a filler. (Col. 2, lines 60-64) The composition is also recited to include pigments. (Claim 13)

7. Hardeners or crosslinkers which can be used include caramel (caramelized sugar, maillose) and dialdehydes (especially glyoxal and glutardialdehyde). (Col. 3, lines 14-17) The content of crosslinkers is generally from 0.2 to 30% by weight. (Col. 3, line 27)

8. The tubes are recited to be extruded and can be treated internally and externally to modify their properties. Generally, the tubes are gathered in sections and the

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resultant shirred sticks are processed on conventional machines. The seamless tubular films are particularly suitable as sausage casings, in particular for small sausages. In addition, the shaped bodies of the invention are also suitable for packaging other foods, e.g. cheese. (Col. 4, lines 33-47) The composition of the invention may also be utilized in a multilayer film including three layers wherein a fibrous polymer pulp is extruded into two fiber-free layers. (Col. 3, lines 55-57)

9. In another embodiment, a thermoplastic sheet was produced from the inventive composition which was used to wrap meat products such as cooked ham. The sheet was also recited to be covered with a net for cooking the ham which presumably provided additional reinforcement. (Col. 5, lines 30-35) The film was recited to be oxygen and smoke permeable while having low liquid and fat permeability. (Col. 5, lines 33-35)

10. Hammer teaches is silent regarding the weight of the reinforcement, the fraction of the further natural or synthetic polymer, the fraction of dye or pigment, the use of a protein free layer, a longitudinally seamed casing and the method of producing such a casing, the coating weight and the water vapor permeability of the resulting casing.

11. Bradshaw teaches an edible, fibrous, protein casing comprising edible, fibrous collagen and edible alginate for use as a sausage casing that is homogenous and strong. (Col. 1, lines 46-58)

12. Both Hammer and Bradshaw are directed to edible sausage casings comprising alginate. Hammer discloses that it is necessary in some instances to provide a fibrous reinforcement to the material of the invention which can include fillers such as leather

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shavings (i.e. collagen). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have utilized the edible, fibrous protein casing disclosed by Bradshaw for the fibrous reinforcement recited by Hammer since the casing of Bradshaw is recited to be strong and is made from similar materials to the fiber reinforcement disclosed by Hammer. The fibrous casing disclosed by Bradshaw is interpreted to read on the limitation of a "porous film" disclosed in claim 2.

13. Regarding claims 1-4, 6, 8, 10-15, 19 and 23-26: Bradshaw does not recite a weight for the fibrous casing to be used as a reinforcement disclosed. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have selected a fibrous reinforcing layer with an appropriate weight depending on the amount of strength required. The obvious optimization of the weight of the reinforcing layer would have produced the same invention as claimed in claims 1 and 25. The production of a casing combining the layers recited by Hammer and Bradshaw would have produced the same invention claimed in claims 1-4, 6, 8, 10-15, 19 and 23-26.

14. Regarding claims 7 and 26: Hammer recites that the protein is present in an amount of from 10% to 90% by weight based on the total weight of the composition. In the case where the claimed ranges "overlap or lie inside ranges disclosed by the prior art" a prima facie case of obviousness exists. *In re Wertheim*, 541 F.2d 257, 191 USPQ 90 (CCPA 1976); *In re Woodruff*, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir. 1990)

15. Regarding claims 8 and 10-12: Hammer recites that the composition preferably comprises two or more plastifiable biopolymers. Alginate and carrageenan (a branched

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polysaccharide) are recited to be useful plastifiable biopolymers along with gelatin.

While Hammer does not specifically disclose that alginate and carrageenan act as plasticizers, they are the same compounds claimed by applicant as plasticizers and therefore would be expected to perform the same function. Therefore, the composition recited by Hammer is the same as the claimed in claims 8, 10 and 11. Furthermore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have optimized the ratio of gelatin to alginate or carrageenan. Hammer teaches that previously it had not been possible to give alginate based sausage casings the stability necessary. Owing to the action of the sausage emulsion and brine the poorly soluble calcium salt is gradually converted into the readily soluble sodium salt of alginic acid. Alginate casings as a result lose their strength. (Col. 1, lines 29-34) In light of this teaching, one of ordinary skill would not have sought to employ alginate as the majority plastifiable biopolymer and would have utilized it in amounts that were less than 50%. The obvious use of alginate in amounts less than 50% would have produced the invention claimed in claim 12.

16. Regarding claim 16: Hammer specifically recites that pigments may be used as claimed in claim 15. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have optimized the amount of pigment or dye used depending on the intensity of the resulting color desired. Such an optimization of the amount of pigments would have produced the invention as claimed in claim 16.

17. Regarding claim 17: The examiner takes official notice multilayer sausage casings are universally known in the sausage casings arts comprising layers that do not

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comprise proteins. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have disposed an additional non-protein barrier layer or protective layer to the casing produced by the combination of Hammer and Bradshaw which would have produced the same invention as claimed in claim 17.

18. Regarding claims 3, 19 and 20-22: While the composition disclosed by Hammer is recited to be extruded, one of ordinary skill would have recognized that it could also be utilized as a coating composition for a casing as disclosed by Bradshaw. The examiner takes official notice that it is well known in the sausage casing art that tubular casings may either be formed seamlessly by coextrusion of the layers or they may be formed with a seam by forming an extruded sheet into a tubular shape. Instead of extruding the inventive composition of Hammer as a tube, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have applied it as a coating to sheet of reinforcing material. The coating could then be said to impregnate the fabric material and would permeate the fabric material. This would have been the same as the invention claimed in claims 3 and 19. The obvious formation of this impregnated sheet into a tubular casing would have produced a casing with one longitudinal seam which is the same as the invention claimed in claim 20. Such a tube would have been produced by the same method as that claimed in claim 22.

Additionally, the examiner takes official notice that it is well known in the sausage casing art to support preformed tubular casings with air so that they may be internally or externally coated. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have supported a preformed reinforcing fabric



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tubular article with air while coating it with the composition recited by Hammer. The obvious utilization of this method step would have produced a method the same as that claimed claim 21.

19. Regarding claim 27: Depending on the amount of structural integrity to be provided by the casing layer taught by Hammer, one of ordinary skill would have varied the result effective variable of thickness of the layers to obtain the desired strength. This obvious optimization of casing thickness would have produced a casing with a weight per unit area as claimed in claim 27. The casing produced by the combination of Hammer and Bradshaw would have a water vapor permeability within the range claimed by applicant since it is made from the same materials disclosed to be useful by applicant. Furthermore, it is well known in the sausage casing art to provide porosity or barrier layers depending on the amount of permeability desired for a sausage casing. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have optimized these properties by providing porosity or a barrier layer to the casing produced by the combination of Hammer and Bradshaw depending on the amount of vapor permeability desired. Such an obvious modification would have produced the same water vapor permeability as claimed in claim 27.

20. Regarding claim 29: The fibrous material disclosed by Bradshaw is broadly reasonably interpreted to be self supporting since it is recited to be a "strong casing".

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21. Claims 1 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hammer et al. WO98/34490 (U.S. Patent No. 6,902,783 used herein for translation and reference, hereafter referred to as Hammer) and Bradshaw et al. U.S. Patent No. 3,494,772 (hereafter referred to as Bradshaw) and Gord et al. U.S. Patent Application Publication No. 2002/0064580 (hereafter referred to as Gord).

22. Hammer and Bradshaw teach what has been recited above but is silent regarding the addition of polyvinyl acetate or polyacrylate.

23. Gord teaches a cellulose fiber based sausage casing coated with a solution comprising a protein such as gelatin and other additives. (Para. 18, 19) Polyvinyl acetate and polyacrylate are recited to be useful additives for the protein solution because they impart higher smoke permeability to the casing. (Para. 21)

24. Hammer, Bradshaw and Gord are both directed towards sausage casings comprising protein based films. One of ordinary skill would have been motivated to utilize polyvinyl acetate or polyacrylate as an additional additive in the composition recited by Hammer in order to impart higher smoke permeability to the casing. The obvious use of polyvinyl acetate or polyacrylate as an additive in the composition of Hammer in order to increase the smoke permeability of the casing would have produced the invention claimed in claims 1 and 9.

25. Claims 1 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hammer et al. WO98/34490 (U.S. Patent No. 6,902,783 used herein for translation and

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reference, hereafter referred to as Hammer) and Bradshaw et al. U.S. Patent No.

3,494,772 (hereafter referred to as Bradshaw) and Jon et al. U.S. Patent No. 5,955,126

(hereafter referred to as Jon).

26. Hammer and Bradshaw teach what has been recited above but is silent regarding the addition of a polyvinylidene chloride copolymer layer.

27. Jon teaches a polyvinylidene chloride copolymer coated fiber reinforced cellulose casing coated with a solution comprising a protein. (Claims 1 and 6)

28. Hammer, Bradshaw and Jon are all directed towards sausage casings. As stated above, it is universally known in the sausage casing arts to utilize multilayer casings. Jon evidences that polyvinylidene chloride layers were known to be useful in combination with protein coated reinforced casings. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have utilized a polyvinylidene chloride layer as an additional layer in the casing recited by Hammer. The utilization of such a layer would have produced the casing as claimed in claims 1 and 18.

29. Claims 1 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Siebrecht et al. U.S. Patent No. 5,043,194 (hereafter referred to as Siebrecht) and Hammer et al. WO98/34490 (U.S. Patent No. 6,902,783 used herein for translation and reference, hereafter referred to as Hammer).

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30. Siebrecht teaches a sausage casing comprising a textile layer coated with cellulose that imparts a decorative, sturdy appearance to the known tubular packaging casings based on cellulose. (Col. 1, lines 55-60, Col. 2, lines 40-45) The textile reinforcing layer can comprise cellulose fibers as well as polyamide and polyester fibers. (Col. 3, lines 54-57) The weight per unit area of the reinforcing layer is recited to be in the range of 10 to 400 g/m<sup>2</sup>. (Col. 4, lines 17-21) The thickness of the outer cellulose layer is recited to be below 100 µm and in particular below 50 µm so that the texture of the textile reinforcement may be observed. (Col. 2, lines 56-63)

31. Siebrecht is silent regarding utilizing a protein coating.

32. Hammer teaches what has been recited above. Hammer further discloses that the process used to produce the inventive casing is simple, inexpensive and environmentally friendly since the casings are produced from natural raw materials. (Col. 1, lines 39-41) The films of the invention generally have a thickness from 20 to 120 µm. (Col. 2, lines 24-30)

33. Both Siebrecht and Hammer are directed to sausage casings. One of ordinary skill in the art would have been motivated to substitute the inventive film of Hammer for the cellulose coating disclosed by Siebrecht by laminating the film of Hammer to the reinforcement disclosed by Siebrecht in order to produce a more environmentally friendly product that would not require the harsh chemicals required for the viscose process disclosed by Siebrecht. Since the film of Hammer is disclosed to be produced within the thickness range disclosed to be necessary for the invention of Siebrecht the textural features of the reinforcement layer would still be visible through the film of

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Hammer. This obvious substitution would have produced the same invention claimed in claims 1 and 28. The selection of a known material based on its suitability for its intended use supports a *prima facie* obviousness determination. ("Reading a list and selecting a known compound to meet known requirements is no more ingenious than selecting the last piece to put in the last opening in a jig-saw puzzle." *Sinclair & Carroll Co. v. Interchemical Corp.*, 325 U.S. 327, 65 USPQ 297 (1945) See also *In re Leshin*, 227 F.2d 197, 125 USPQ 416 (CCPA 1960) (selection of a known plastic to make a container of a type made of plastics prior to the invention was held to be obvious)) (MPEP 2144.07)

### ***Response to Arguments***

34. Applicant's arguments filed 1/28/10 have been fully considered but they are not persuasive.

35. Applicant has asserted on page 8 of the remarks that the specification as filed provides support for the recitation of "consisting of" in claim 6 since "a food casing containing the recited proteins is disclosed". The examiner does not dispute that a casing "containing" the proteins claimed in claim 6 is disclosed, just that a casing with a coating where the protein "consists" of the proteins is not disclosed. Applicant has failed to provide a citation of the claim language "consisting of". As stated in MPEP 2111.03 "The transitional phrases "comprising", "consisting essentially of" and "consisting of" define the scope of a claim with respect to what unrecited additional components or steps, if any, are excluded from the scope of the claim. The transitional

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term “comprising”, which is synonymous with “including,” “containing,” or “characterized by,” is inclusive or open-ended and does not exclude additional, unrecited elements or method steps. See, e.g., > *Mars Inc. v. H.J. Heinz Co.*, 377 F.3d 1369, 1376, 71 USPQ2d 1837, 1843 (Fed. Cir. 2004) (“like the term comprising,’ the terms containing’ and mixture’ are open-ended.”).< *Invitrogen Corp. v. Biocrest Mfg., L.P.*, 327 F.3d 1364, 1368, 66 USPQ2d 1631, 1634 (Fed. Cir. 2003) (“The transition comprising’ in a method claim indicates that the claim is open-ended and allows for additional steps.”); *Genentech, Inc. v. Chiron Corp.*, 112 F.3d 495, 501, 42 USPQ2d 1608, 1613 (Fed. Cir. 1997) (“Comprising” is a term of art used in claim language which means that the named elements are essential, but other elements may be added and still form a construct within the scope of the claim.); *Moleculon Research Corp. v. CBS, Inc.*, 793 F.2d 1261, 229 USPQ 805 (Fed. Cir. 1986); *In re Baxter*, 656 F.2d 679, 686, 210 USPQ 795, 803 (CCPA 1981); *Ex parte Davis*, 80 USPQ 448, 450 (Bd. App. 1948) (“comprising” leaves “the claim open for the inclusion of unspecified ingredients even in major amounts”).

36. Applicant’s specification recites preferred proteins and claim 6 as originally filed recites that the protein *comprises* gelatin or collagen. Applicant has failed to provide a citation of the claim language “consisting of” and therefore the rejection under 112 first paragraph is upheld.

37. Applicant asserts on page 11 of the remarks that “web” is “a well known term of art referring to materials having a pattern or structure”. Applicant appears to be

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providing a definition for a term that was not presented in the specification as filed.

Absent any evidence to support this contention, the examiner is not persuaded.

38. In response to applicant's arguments on page 11 against the primary reference individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

39. Applicant asserts on page 11 that claim 2 requires a "fabric". However, it is noted by the examiner that claim 2 also includes the recitation of a "porous film", which the examiner broadly reasonably interprets to read on the fibrous casing disclosed by Bradshaw.

40. Applicant's arguments on page 12 of the remarks regarding the deficiencies of Hammer as they relate to claims 28 and 29 have been addressed above.

41. In response to applicant's arguments on page 13 against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

42. Applicant asserts on page 13 that Bradshaw teaches that "collagen casings are tough to eat" but fails to provide the relevant citation. Indeed, the insinuation of applicant appears to be that the casing of Bradshaw is unsuitable for its own intended purpose, which does not make sense in light of the teachings of Bradshaw.

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43. The examiner is not persuaded by applicant's assertion on page 14 of the remarks that the fibrous casing of Bradshaw could not concurrently be both edible and self supporting. Bradshaw clearly recites that the casing is "strong" (Col. 1, line 58) and it is suitable for use as a casing without rupturing, so it is therefore broadly reasonably interpreted to be "self supporting".

44. It is unclear to the examiner why an edible casing such as produced by the combination of Hammer and Bradshaw would not read on the instantly pending claims as asserted by applicant on page 14. There is no requirement that the instantly pending invention be inedible.

45. The relevance of the "fabrics" recited in claim 2 asserted on page 14 of the remarks have been addressed above.

46. Applicant's repeated assertions regarding the importance of the weight per unit are of the fibrous web are not found persuasive by the examiner. It has long been an axiom of United States patent law that it is not inventive to discover the optimum or workable ranges of result-effective variables by routine experimentation. *In re Peterson*, 315 F.3d 1325, 1330 (Fed. Cir. 2003) ("The normal desire of scientists or artisans to improve upon what is already generally known provides the motivation to determine where in a disclosed set of percentage ranges is the optimum combination of percentages."); *In re Boesch*, 617 F.2d 272, 276 (CCPA 1980) ("[D]iscovery of an optimum value of a result effective variable in a known process is ordinarily within the skill of the art."); *In re Aller*, 220 F.2d 454, 456 (CCPA 1955) ("[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the



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optimum or workable ranges by routine experimentation."). "Only if the 'results of optimizing a variable' are 'unexpectedly good' can a patent be obtained for the claimed critical range." *In re Geisler*, 116 F.3d 1465, 1470 (Fed. Cir. 1997) (quoting *In re Antonie*, 559 F.2d 618, 620 (CCPA 1977)). In the instant case, weight per unit area is directly related to the structural integrity of the casing which is directly related to the thickness of the casing. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have optimized these result effective variables.

47. Applicant's assertions on page 15 of the remarks regarding claims 28 and 29 have been addressed above.

48. Applicant asserts on pages 15-17 of the remarks that Gord alone fails to disclose the claimed invention. However, note that while Gord does not disclose all the features of the present claimed invention, Gord is used as teaching reference, and therefore, it is not necessary for this secondary reference to contain all the features of the presently claimed invention, *In re Nievelt*, 482 F.2d 965, 179 USPQ 224, 226 (CCPA 1973), *In re Keller* 624 F.2d 413, 208 USPQ 871, 881 (CCPA 1981). Rather this reference teaches a certain concept, namely, that polyvinyl acetate and polyacrylate are recited to be useful additives for the protein solution because they impart higher smoke permeability to the casing and in combination with the primary reference, discloses the presently claimed invention.

49. Applicant asserts on pages 17-19 of the remarks that Jon alone fails to disclose the claimed invention. However, note that while Jon does not disclose all the features of the present claimed invention, Jon is used as teaching reference, and therefore, it is

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not necessary for this secondary reference to contain all the features of the presently claimed invention, *In re Nievelt*, 482 F.2d 965, 179 USPQ 224, 226 (CCPA 1973), *In re Keller* 624 F.2d 413, 208 USPQ 871, 881 (CCPA 1981). Rather this reference teaches a certain concept, namely, that polyvinylidene chloride layers were known to be useful in combination with protein coated reinforced casings and in combination with the primary reference, discloses the presently claimed invention.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **MICHELE JACOBSON** whose telephone number is

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(571)272-8905. The examiner can normally be reached on Monday-Thursday 8:30 AM-7 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached on (571)272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Michele L. Jacobson  
Examiner /M. J./  
Art Unit 1782

/Rena L. Dye/  
Supervisory Patent Examiner, Art Unit 1782